A New Species of the Genus Ctenus (Araneae: Ctenidae) from the Yaeyama Islands, Japan and Taiwan

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吉田 哉¹⁾:八重山諸島および台湾産 Ctenus 属 (クモ目: シボグモ科) の 1 新種

Abstract A new species belonging to the family Ctenidae is described from the Yaeyama Islands, Japan and Taiwan, under the name, *Ctenus yaeyamensis*. The genus *Ctenus* is recorded for the first time from Japan and Taiwan.

One species of the family Ctenidae, *Anahita fauna* Karsch, 1879, is distributed in Japan, Korea, China and Taiwan (Karsch 1879, Chu & Okuma 1975, Zhu 1983, Yaginuma 1986). Another species of this family has been collected by A. Tanikawa, M. Yoshimura and myself from Ishigaki-jima and Iriomote-jima Islands of the Yaeyama Islands, Japan and Taiwan.

As the result of my close examination, this spider is recognized as a new species of the genus *Ctenus*. *Ctenus* is distinguished from *Anahita* by the retromargin of fang furrow of chelicera with four or five teeth and the labium longer than wide. This genus widely occurs in the tropical and subtropical areas of the world, and about 40 species have been recorded from the Oriental Region (F. O. Pickard-Cambridge 1897, 1902, Roewer 1954, Tikader & Malhotra 1981). However, until now no species of this genus has been known from Japan and Taiwan.

The holotype, allotype and some paratypes of the new species described in this paper are deposited in the collection of the National Science Museum (Natural History), Tokyo, and other paratypes are preserved in my private collection.

The abbreviations used in this paper are as follows: ALE, anterior lateral eye(s); AME, anterior median eye(s); MOA, median ocular area; PLE, posterior lateral eye(s); PME, posterior median eye(s).

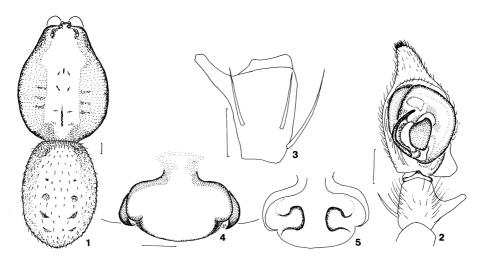
I wish to express my sincere thanks to Dr. Hirotsugu Ono, National Science Museum (Natural History), Tokyo, for his kind advice, and to Mr. Akio Tanikawa, Kanagawa, and Mr. Mamoru Yoshimura, Osaka, for offering valuable specimens for the present study.

Ctenus yaeyamensis sp. nov. (Figs. 1-5)

Description (\varnothing , holotype; \diamondsuit , allotype). Measurements (\varnothing / \diamondsuit , in mm). Total length 10.95/12.73. Carapace length 6.11/5.89, width 4.84/4.74. Clypeus height 0.18/

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Figs. 1-5. Ctenus yaeyamensis sp. nov. ——1, Male carapace and abdomen, dorsal view; 2, male palpus, dorsal view; 3, patella of male palpus, dorsal view; 4, epigynum, ventral view; 5, female genitalia, dorsal view. (Scales: 0.5 mm.)

Table 1. Measurements of leg segments of *Ctenus yaeyamensis* sp. nov. (\nearrow holotype/ $\stackrel{\circ}{\rightarrow}$ allotype).

Leg	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	4.74/3.89	2.32/2.21	4.53/3.37	4.21/2.95	1.79/1.16	17.59/13.58
II	4.53/3.89	2.00/2.11	3.79/3.16	3.79/3.05	1.58/1.05	15.69/13.26
III	3.79/3.47	1.89/2.00	2.95/2.63	3.37/3.05	1.16/1.16	13.16/12.21
IV	5.05/4.74	2.11/2.11	4.42/3.79	5.68/4.42	1.79/1.68	19.05/16.74

0.18. Abdomen length 5.26/6.84, width 3.58/4.11. Length of legs as in Table 1. Eye sizes and interdistances: AME 0.26/0.29, ALE 0.18/0.24, PME 0.34/0.37, PLE 0.34/0.37, AME-AME 0.13/0.21, AME-ALE 0.34/0.45, PME-PME 0.18/0.21, PME-PLE 0.32/0.47, ALE-PME 0.18/0.24, ALE-PLE 0.21/0.21, MOA anterior width 0.61/0.74, posterior width 0.82/0.95, length 0.71/0.74.

Carapace with longitudinal median furrow. Chelicerae and maxillae with scopula. Promargin of fang furrow of chelicera with three teeth, retromargin with four teeth. Labium longer than wide. Eyes in three rows; ALE smallest (PME=PLE>AME>ALE). Leg-formula IV-I-III. Femora to metatarsi of the legs with many dorsal spines. Tibiae I-II with five pairs of, III-IV with three pairs of ventral spines. Metatarsi I-III with three pairs of, IV with four pairs of ventral spines. Claw tuft developed.

Male palpus (Figs. 2-3). Tibia with a retrolateral apophysis developed; cymbium with a paracymbial apophysis, tegular apophysis large and round, embolus short, membranous conductor small.

Female genitalia (Figs. 4-5). A pair of lateral epiginal apophyses present; openings situated in the base of epiginal apophyses. Duct thick, conjugated epiginal plate. Coloration and markings (\nearrow ?). Carapace dark brown, lighter in head region;

white hairs present posterior part of the eye region. Sternum, maxillae and labium brown. Chelicerae dark brown; fang blackish. Legs brown without markings; metatarsi and tarsi dark. Abdomen yellowish brown with dorsal dusky flecks, covered with brown densely hairs. Some female specimens are much darker in coloration.

Type series. Holotype: ♂, Chitow, Nantow County, Taiwan, 20-VII-1977, H. Yoshida leg., (NSMT-Ar 4150). Allotype: ♀, same locality and collector as for the holotype, 21-VII-1977, (NSMT-Ar 4151). Paratypes: 1 ♂, same locality and date as for the holotype, M. Yoshimura leg.; 1 juv., same data as for the allotype; 1 juv. Penpuchi, Nantow County, Taiwan, 27-XII-1997, H. Yoshida leg.; 1 juv., Wulai, Taipei County, Taiwan, 30-VII-1977, H. Yoshida leg.; 1 ♀, 5 juv., Mt. Omoto-dake, Ishigaki-jima Island, Okinawa Prefecture, Japan, 12-VII-1976, H. Yoshida leg.; 1 ♂, 1 ♀, Urauchi, Iriomote-jima Island, Okinawa Prefecture, Japan, 31-III-1983, A. Tanikawa leg.; 1 ♂, Sonai, Iriomote-jima Island, 30-III-1988, A.Tanikawa leg., (NSMT-Ar 4153); 1 ♀, Otomi, Iriomote-jima Island, 31-III-1987, A. Tanikawa leg., (NSMT-Ar 4154); 1 ♂, Komi, Iriomote-jima Island, 27-XII-1989, A. Tanikawa leg., (NSMT-Ar 4155).

Distribution. Japan: the Yaeyama Islands (Ishigaki-jima and Iriomote-jima Islands). Taiwan: Taipei and Nantow Counties.

Remarks. The present new species is similar to Ctenus thorelli F. O. Pickard-Cambridge, 1897 described from Sri Lanka in the shape of male palpus, but is distinguished from the latter by the cymbium with a paracymbial ride and one large tegular apophysis. The shape of epigynum and the size of the new species also differ from those of C. thorelli.

One species of the genus *Ctenus*, *C. philippinensis* F. O. Pickard-Cambridge, 1897, is known from Manila, the Philippines, but the new species is distinguishable from it by the small size and the epiynum without median projection.

Etymology. The specific name is an adjective derived from the Yaeyama Islands, Japan.

摘 要

八重山諸島および台湾産のシボクモ科 Ctenus 属に属する1新種を、Ctenus yaeyamensis ヤエヤマシボグモ (新称) の名前で記載した。Ctenus ミナミシボグモ属 (新称) は Anahita シボグモ属に近似するが、下唇が長さ>幅であること、上顎の後牙堤に 4 歯または 5 歯あることにより区別できる。Ctenus 属は日本および台湾新記録となる。

References

Chu, Y.-I., & C. Okuma, 1975. A list of spiders of Taiwan, part 2. Sci. J. Taiwan Mus., 18: 101-119. (In Chinese.)

Karsch, F., 1879. Baustoffe zu einer Spinnenfauna von Japan. Verh. naturh. Ver. preuss. Rhein., 36: 57-105, pl. 1.

Paik, K.-Y., & J.-P. Kim, 1985. A list of Korean spiders (revised in 1985). Korean Arachnol., 1:51-82.

Pickard-Cambridge, F. O., 1897. On the Cteniform spiders of Ceylon, Burmah, and the Indian Archipelago, west and north Wallace's line; with bibliography and list of those from Australasia,

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- south and east Wallace's line. Ann. Mag. nat. Hist., (6) 20: 329-356, pl. IV.
- Pickard-Cambridge, F. O., 1902. New species of spiders belonging to the genus *Ctenus*, with supplementary notes. *Ann. Mag. nat. Hist.*, (7) 9: 401-415, pl. VII.
- Roewer, C. Fr., 1954. Katalog der Araneae von 1758 bis 1940, bzw. 1954. 2. Band, Abt. a. 923 pp. Bruxelles.
- Tikadar, B. K. & M. S. Malhotra, 1981. Revision of spider of the genus *Ctenus* Walckenaer from India (Araneae: Ctenidae). *Rec. zool. Surv. India*, 79: 105-124.
- Yaginuma, T., 1986. Spiders of Japan in Color (new edition). xxiv+305 pp., 64 pls. Hoikusha, Osaka. (In Japanese.)
- Zhu, C.-D., 1983. A list of Chinese spiders (revised in 1983). J. Bet. med. Univ., 9: 1-130. (In Chinese.)